Clinic Notes

23rd Annual Meeting

of

National Collegiate Track Coaches Association

at

University of California

June, 1952

NATIONAL COLLEGIATE TRACK COACHES ASSOCIATION

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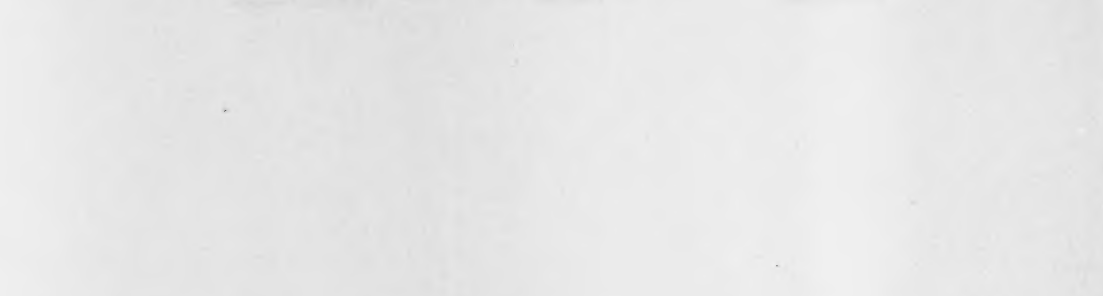

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THE NATIONAL COLLEGIATE TRACK COACHES ASSOCIATION

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M. E. "Bill" Easton ..... Editor

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Minutes of the Spring Meeting

National Collegiate Track Coaches Association

University of California, Berkeley, California

The National Collegiate Track Coaches Clinic of 1952 was one of the very best ever held. The facilities and hospitality of the University of California were wonderful and the attendance of the coaches was one of the best ever.

On Wednesday night June 11th, 6:30 p.m., the track coaches dinner was held at Springer's Fish Grotto in Berkeley at which time Brutus Hamilton, Head Coach of the United States Olympic team, outlined the plans for the coming Olympics Games and introduced his staff: Chuck Werner, Pennsylvania State College, Larry Snyder of Ohio State University, and Clyde Littlefield of the University of Texas.

At 8:00 p.m., pictures of the 1951 NCAA meet were then shown; thanks to the work of Coach Hec Edmundson, of the University of Washington.

The Annual Clinic was held in room 131, Men's Gym, University of California, Thursday, June 12. The meeting was called to order by President E. S. "Hec" Edmundson and a word of welcome extended to all coaches present.

9:00-9:45—A very interesting paper was read on the high jump by Percy Beard of the University of Florida and the coaches had the opportunity of questioning J. Lewis "Pappy" Hall, 1951 NCAA high jump champion, the man about whom the paper was written.

9:45-10:30—A paper on the 400 Meter Hurdles written by Coach Lewis Montgomery of Cornell University was read by Vice-President George Rider, Miami University. The paper was highly commended by all coaches present. It must be pointed out this is the first attempt to write a paper on the 400 Meter Hurdles. The work program outlined by Coach Montgomery for Charlie Moore and Meridith Gourdine has shown excellent results (Moore won Olympic 400 Meter Championship) and the program outlined in his paper indicates the tremendous amount of hard work necessary to become proficient in this event.

10:30-11:15—Jack Williamson, Trainer, University of California, gave a personalized lecture on the facilities necessary for training a track team. He did a very fine job and we express our thanks for his work in this field.

Business meeting—1:30-2:30. Immediately following lunch the following recommendation was passed by the NCTCA group in session. It was voted unanimously that in future years all events contested in the NCAA meet be held in one place. It was further voted to recommend that in Olympic years the NCAA program and schedule of events conform as closely as possible to the Olympic program and schedule of events and that this program and schedule of events be published in the NCAA Track and Field Guide.

The Secretary-Treasurer's report was read and passed. The NCTCA revised constitution was read and various changes were made. You will find the new constitution enclosed and we would like to have you return the card enclosed immediately with your vote.

The President called for the report of the nominating committee for next year's officers. The following names were submitted and accepted. This slate was elected by unanimous vote by those present. President—George L. Rider, University of Miami, Oxford, Ohio; Vice-President—Al Moreau, Louisiana State University, Baton Rouge, Louisiana; Secretary-Treasurer—M. E. Easton, University of Kansas, Lawrence, Kansas. The Advisory Committee remained the same and the first new members will be elected at the Spring meeting, 1953. The Advisory Committee members by NCAA Districts are:

1. Elliott Noyes, Dartmouth (6 years)
2. John Gibson, Seton Hall (4 years)
3. Percy Beard, Florida (4 years)
4. Don Canham, Michigan (6 years)
5. Tom Botts, Missouri (2 years)
6. Clyde Littlefield, Texas (4 years)
7. Frank Potts, Colorado (2 years)
8. Jack Mooberry, Washington State (6 years)
9. Charles Werner, Penn State—At Large (2 years)

The above officers and Advisory Committee Members selected at the annual meeting held at the University of California, Berkeley, California, June 12, 1952.

Adjourned 3:15 p.m.

M. E. EASTON
Secretary-Treasurer

Foreword from the President

Let's Put Some New Life in the "World's Oldest Sport"

by GEORGE L. RIDER

Track Coach, Miami University

As your president, I am endeavoring to increase the membership in our Association and "TO PUT NEW LIFE IN THE WORLD'S OLDEST SPORT." In order to do this, it is necessary to enlist the **active** support of every member of our Association and I am therefore appealing to each of you to join in the campaign. I know you are all busy, but I cherish the hope that each of you will find the time to do a little selling and that each of you will be able to secure a new member for our Association.

I would like to suggest a plan of selling for you to consider. It is a plan we initiated in Ohio in 1941. We organized the Ohio Association of Track Coaches with membership open to all high school and college coaches, and to anyone else interested in the promotion and support of track and field athletics in our state.

The officers of our Association are a President, six Vice Presidents (one from each O.H.S.A.A. Districts), a Secretary, a Treasurer (separate from the office of Secretary), a special Secretary of Awards, and a Relay Advisory Board consisting of seven members.

Our officers are elected by mail not later than April 1st of each year. The term of office is one year and any officer may be re-elected to succeed himself if the members so vote.

Each year we hold a track clinic for all the coaches in Ohio. In addition to the one state clinic, the Vice Presidents of our six districts also promote clinics if it seems desirable.

Membership dues in our Ohio Association is $1.00 per year with the option of becoming an Associate Member of the N.C.T.C.A. by the payment of an additional $3.00. Upon receipt of $4.00 by our Treasurer, one dollar is kept for the State Association dues, and $3.00 is sent to M. E. "Bill" Easton, Secretary and Treasurer of the N.C.T.C.A. of the University of Kansas, Lawrence, Kansas. This makes the individual a member of both Associations and incidentally helps increase the membership of the N.C.T.C.A. as well as to render an important service to our high school coaches. Each member of our Ohio Association is given a membership card certifying that he is a paid member and those who become Associate Members of our N.C.T.C.A. likewise receive a membership card from Bill Easton, our N.C.T.C.A. Secretary-Treasurer. In addition to their membership cards, all Associate Members of the N.C.T.C.A. receive the notes of our N.C.T.C.A. annual clinic and a subscription to "Track and Field News," the official organ of the N.C.T.C.A. which is published monthly and mailed to all members.

If you are working in a state with a Track Coaches Association similar to the Ohio Association, will you get in and pitch a little harder and make it more alive. If you are not fortunate enough to work in a state having such an organization, I hope you will take the initiative in attempting to organize one. I will be very happy to give you any assistance I can. If you wish to know more about our Ohio Association you will be able to get a copy of our constitution and bylaws from our Secretary, Richard A. Larkin, Upper Arlington High School, Upper Arlington, Ohio.

Let's plan now to attend our next clinic which will be held at the time and place of the N.C.A.A. Championships. I hope all of you will be there and bring at least one new member.

Letter from the Head Coach

by **BRUTUS HAMILTON**
Director of Athletics
University of California

The best way I know to write the article which you request is to try to answer your several questions. I thank you for your congratulatory note concerning the handling of the 1952 Olympic Track and Field Team; however, neither my assistants nor I wish to take a low bow for something for which we deserve only the slightest of nods. We told the boys at our first squad meeting in Los Angeles just after the final tryouts that we expected our assignment as their coaches for the Olympic games to be the easiest we had ever faced. We knew that they had already been well coached and well prepared by their high school and college coaches for the competition. We knew, too, that they had already been taught right from wrong by their good parents. We expected them to honor their country and their opponents with their very best efforts in Helsinki both on the track and off. They were a wonderful group of boys and most cooperative in every way. They were never arrogant in victory and they were most gracious in defeat. They not only turned in brilliant performances in Helsinki but continued to turn in amazing marks in the post-Olympic meets which followed. This latter achievement was even more impressive to some of the European coaches than the achievements in Helsinki. One would think that there would be a terrific letdown after the main events, but it was not true with these boys. Coaches can merely point the way and these sustained and inspired performances can only come from deep within the boys themselves. It is they who deserve the low bow. The best thing that can be said about us who were in charge of them is that we did not interfere with their normal development.

We followed pretty generally the coaching methods which the United States coaches have employed ever since 1920. Each coach was given a number of events for which he was responsible. The assignment of these events proved to be a happy one for the coaches seemed to enjoy having a definite assignment and the boys seemed to like the idea of having a coach to whom they could go for discussion of their problems. The coaching assignments were as follows:

Clyde Littlefield of Texas University handled the 100 and 200 meter runs, the high hurdles, the high jump, and the broad jump.

Larry Snyder of Ohio State University handled the 400 meter run, the 400 meter hurdles, the 800 meter run, the 1500 meter run, and the hop, step and jump.

Charles Werner of Pennsylvania State College handled the 5,000 and 10,000 meter runs, steeplechase, the javelin, and pole vault.

I took the remaining events which included the walking races, marathon, decathlon, shot, discus, and hammer.

We followed this pattern pretty faithfully, although we all cooperated with each other and sometimes changed assignments.

The four coaches lived in the same room at Olympic Village and spent considerable time each day discussing the boys and outlining a work program for the next day. These discussions were valuable and I am certain that they brought dividends in creating an esprit de corps on the team as well as helping in some instances in improved performances on the part of the athletes. We were a congenial group of coaches and we made ourselves available to the boys at all times during our stay in Helsinki.

We had several squad meetings which I believe were fruitful. All of the coaches had had experience with foreign trips before and we knew something of the difficulties which changing conditions might make. We circumvented these difficulties by anticipating them. We told the boys, for example, that their quarters at Olympic Village might not be as comfortable as those which they enjoyed while competing on the football and track teams for their universities. We knew that they would face some unpleasant weather conditions because we knew that rain would fall at some time during the games. We told them that the food would be adequate but not fancy and that they might have to stand in line to get it. The boys accepted the conditions in Helsinki without a gripe. They laughed off the fact that we had no hot water for the first several days in Olympic Village, that they slept on army cots, that they had to wait sometimes as long as thirty or forty minutes in line before being served in the cafeteria. They did not let the rain bother them nor the long hours of daylight. They kept their poise and continued to keep it throughout the entire trip.

I think it very important to point out that the entire staff was a congenial one and was made up of a group of hard workers. The trainers—Eddie Wojecki of Rice, Ken Howard of Auburn, and Ed Hill of Illinois—worked proficiently, faithfully, and tirelessly. They did a wonderful job for they had many boys who had minor ailments which could have developed into major ones if they had been under less expert trainers. The managers—Robert Kane of Cornell, Harold Berliner of San Francisco, Larry Houston of Los Angeles, and Pincus Sober of New York —were superb. They were not only efficient but they were pleasant and kept the boys in good spirits. In addition, they relieved the head coach of the responsibility of attending a lot of meetings just prior to the opening of the games when his time was needed on the practice field. A very low bow should be given to the head team physician, Dr. McPhee of Princeton, and to his assistant, Dr. You of Honolulu. Dr. McPhee, with whom we had most of our dealings, was available twenty-four hours a day and it is a great tribute to his skill as a physician that the boys were so well conditioned and so healthy for the contests. Our nurse, Margaret Small, was most efficient, pleasant, and extremely popular with everyone. She hadn't been in Helsinki two days until she knew the names of all the boys and the events in which they competed. She always had a pleasant word for everyone and she went far above and beyond her duties as nurse in order to help the spirit of the team. I could not close this paragraph of tributes without a most sincere one to the so-called brass. They worked long hours all during our stay in Helsinki. Avery Brundage managed to find time to visit Olympic Village and the practice field in spite of the fact that he was terribly busy on the International Olympic Committee. His election to the presidency of the International Olympic Committee is one which should bring pride to all citizens of the United States. Terry McGovern and Gustavus Towne Kirby spent many hours in consultation with in-

ternational committees. Terry McGovern, especially, was confronted with some difficult legal problems which he consummated with his usual tact and diplomacy. Dan Ferris, who is so highly respected by the boys and everyone else who comes in contact with him, did a tremendous amount of work in his quiet, efficient way. Bill Hunter, Nelson Metcalfe, Charles Kuhm, and all the rest were most efficient and cooperative. In short, we were a happy family without a single bigshot in the outfit, and each of the coaches and each of the officials channelled his effort toward the boys on the team and did everything possible which he could to see that each athlete maximized his potentialities.

The book of the 1592 Olympic games is probably the outstanding one having to do with international amateur sports, and the chapter written by the athletes from the United States is one of the most brilliant ever achieved. The Finnish people proved to be perfect hosts and the officiating at the games left nothing to be desired. The crowds were responsive and appreciative and the spirit of fair play and good sportsmanship displayed was exactly as Baron di Courbertin would have wanted it. We all left Helsinki with a kind of clean and noble feeling, lifted in spirit because of the success of the games, and all of us are glad to have played a little part in such a glorious event.

My Summer in Iceland

by **FRANK SEVIGNE**
Georgetown University

During the summer of 1951, I spent seven memorable weeks in Iceland at the invitation of the Department of State and the Athletic Union of Iceland lecturing and working with their track and field athletes. I was hesitant at first about making this trip as I was under the impression that Iceland was a mass of snow and ice. However, I soon learned that it is a country with 24 hours of sunshine and an average temperature of 58 degrees in the summer.

The country lies about midway between North America and Europe, with the northern part being cut by the Arctic Circle. The gulf stream warms the country and accounts for the fairly mild climate. The people are of Scandinavian descent and their language, the original speech of all the Nordic lands, was brought to Iceland in the year 870 AD by the Vikings. Iceland is considered part of Europe and naturally follows their customs. Their education is also derived from Europe. This is particularly true with their coaches as they have been educated by the Swedes. They are great admirers of the Swedish methods and techniques, but, nevertheless, I found them very eager to learn all they could about our system and methods.

Previous to and during the last war there was relatively little track and field in Iceland. However, from the following list of some of their best performances, you can see how they have progressed.

Huseby	54 feet 9 inch, shot; 161 feet, discus
Bryngursson	14 feet 2 inch, pole vault
H. Clausen	100 meters, 10.6; 200 meters, 21.3
Larusson	400 meters, 48.0
Jonsson	800 meters, 1.54.0; 1500 meters, 3.53.4
Kaldal	5000 meters, 15.23
O. Clausen, Scandinavian decathlon record holder (Old system of scoring)	7453

From this list I believe you can see the progress made since 1946. However, to fully appreciate this progress some of their handicaps must be considered. The organized high school and collegiate athletic programs that are the backbone of the United States athletic prowess are nonexistent in this country. Clubs are the fostering influence of all athletic competition. This I believe is somewhat of a handicap, especially in the development of the younger athletes as the coaches do not have strict supervision and guidance over their men as a high school coach would have in our country.

The nation's population of 150,000 would not fill two of our larger stadiums. One third or 50,000 of the people are located in Reykjavik, the capital, with the rest of the population scattered throughout the country. With this handicap of so few people to help their athletic program, they do have a very high percentage of young men taking part. These programs go on throughout the country and conditions are not always the best, but they do get the work done.

The difficulties encountered in the weather and terrain that the Icelandic athlete contends with shows up in the type running they do. As you probably noticed, they fall far short in the middle distance and distance events. This is unusual in that they are a Scandinavian nation and their coaches are schooled by the Swedes. There are varied reasons for this shortcoming. Namely, there are just two seasons in Iceland—winter and summer. The winter is not conducive for good training as it doesn't allow an athlete to get out early for any off season distance or cross country work. Even if the weather was in favor of the athlete, the terrain of the country would be against him. The country is mostly all hard, rocky volcanic lava, impossible to run on. The roads are not much better, but I did suggest that they get distance work over the roads as that is better than nothing.

As a matter of interest, it might be mentioned that even the competitive tracks are made of lava. The lava rock is crushed and makes a hard, fairly fast track and is comparable to a clay track.

The Icelanders are hard workers and quick to learn, a quality that is inherent to all good athletes. The facilities are not always ready and waiting for them, but they have a faculty for overcoming hardships. In retrospect, Iceland as a country along with its people, impressed me as an amazing place. They established in 930 A.D. the first democratic parliament in the world. The country has few natural resources and must import most of its staples of life. With all this, I never did see any poverty or slums. Everyone works and is moderately well off. Most Icelanders speak two languages and their illiteracy rate is one of the lowest in the world. In view of the above facts, their sudden success in track is understandable.

It was a pleasure working with such fine people and I only hope they were able to gain as much from my visit as I gained from them. Their athletes have the competitive spirit and fire of the new world coupled with the stamina and determination of the old. We will hear a lot more from that small north country in the future.

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High Jump

by **PERCY BEARD**
University of Florida

There are so many different styles of high jumping and variations of these styles that I am going to confine my remarks to a discussion of one jumper — J. Lewis Hall, Jr., of the University of Florida—and try to analyze his particular style.

First, a little background. As a high school jumper for Leon High School of Tallahassee, Florida, Hall cleared about 6'2". He used the Western style with a short four stride approach.

As a freshman at the University of Florida, he changed to the straddle style, although retaining the four stride approach. A longer approach was tried from time to time but he couldn't jump as well with it. His best effort as a freshman was 6'4⅝", which he did in winning the Junior National AAU.

As a sophomore he continued to use the short approach and cleared 6'6" with it. About the middle of the season he became convinced that he would have to use a longer approach if he expected to go any higher. He then changed to 8 strides and has used it ever since. He adjusted himself to this change very easily and shortly thereafter cleared 6'8" in a dual meet. His best last year was 6'9" which he did in winning the NCAA.

He was very consistent throughout the year—averaging above 6'6" for all jumps with 6'5½" being his poorest.

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Comment on pictures (Hall, June, 1952)

1. The second stride of the approach. From the very start his eyes are fixed on the cross bar.
2. The third stride. His approach is relaxed and fairly slow—especially at this point.
3. & 4. The fourth and fifth strides. Up to this point the run is in a straight line. He is beginning to gather himself for the jump.
5. The sixth stride in which the left foot comes down about 2′ 5″ to the left of the line of approach. His speed is accelerated on this and the next two strides.
6. The seventh stride in which the right foot comes down about 7″ to the right of the line of approach.
7. The eighth and last stride. The left foot is now back on the line of approach. Note the extreme backward lean. This checks the forward momentum of the body. The take-off is about 3′ 0″ from the bar.
8. This shows the straight leg kick-up. This powerful kick is of material aid in lifting the body upward. This kick is made straight ahead in a continuation of the line of approach.
9. He likes to have his hands in the position shown, because he has found that if he extends them overhead he also straightens out his legs when on top of the bar. Note that he has jumped almost directly upward. His body has moved very little along the bar.
10. The jumping leg is simply lifted and allowed to float over the bar.
11. The rotation of the body around the bar is now complete. The jumping leg is still relaxed. It is never straightened. This rotation must continue until the jumping leg is clear of the bar.
12. The landing. The rotation of the body causes him to land almost on his back.

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This year he has been hampered by a strained muscle in the groin of his right leg, or kicking leg. It has recurred several times after apparently healing. As a result he has not been able to follow the same training routine as last year.

Now, let's talk about his jumping style. It is entirely natural with him. Fortunately, I recognized its similarity to that of Les Steers and thereafter confined my coaching to providing a good take-off; a good jumping pit and a good pair of shoes.

I have tried to teach it to other jumpers but have been unable to do so—at least in its entirety.

I have already mentioned that he uses the straddle jump. In his version he approaches from the left, jumps from his left foot, takes a tremendous kick with his right and rolls over the bar face down—landing on his right side and back with a rolling motion.

The characteristic features of his version are:

(1) An extreme backward lean as his left foot comes down for the take-off.

(2) A very powerful straight leg kick with the right leg.

(3) Relaxing the jumping leg and floating it over instead of kicking it out straight at the top of the jump.

They serve a very definite purpose, or at least have a very definite and helpful effect.

The backward lean and the kickup check the forward progress of the body and produce a very economical clearance. The landing is almost directly opposite the take-off. There is little movement along the bar. The body therefore has to maintain its maximum height for only a minimum length of time. The backward lean and vigorous straight leg kick go together. You cannot have one without the other.

A great many jumpers kick or straighten out the jumping leg at the apex of the jump. This serves no useful purpose but does frequently result in kicking the bar off after clearance has been made.

Hall simply picks his jumping leg up in as relaxed a manner as possible and rotates his entire body around the bar. His body is parallel to it at the top of his jump and this rolls his jumping leg away from the bar.

His approach is at an angle of about 35 degrees with the bar. Standing with feet together, he starts off with his right foot and his strides average in length as follows: 1 foot, 2 inches, 3 feet 11 inches, 4 feet 5 inches, 4 feet 7 inches, 4 feet 8 inches, 4 feet 9 inches, 5 feet 11 inches, 5 feet 10 inches. He uses a side step on strides 6 and 7 in a manner peculiarly his own. If a straight line were drawn from his point of take-off to his starting point, his left foot on stride 6 comes down 2 feet 5 inches to the left of such line. Then his right foot comes down 7 inches to the right of the line on stride 7. As far as he is concerned this side step is essential. It might be a handicap to another jumper. I am inclined to think that, since his jumping effort is straight up, the drive to the left on his take-off is necessary to carry his body across the bar. When his left foot comes down for his take-off, it is lined up exactly with the line mentioned above and his kickup is a continuation of this line.

In early season he jumps every day although not often for height. He starts off using the four stride approach. Practice with a short approach is valuable for any style jumper since it forces him to depend on his spring and skill for clearance, rather than the speed of his approach.

He normally does a lot of jumping at a good but not maximum height—one where he must concentrate on every phase of his jump in order to clear it comfortably. This practice floor or base line he tries to keep as high as possible. Last year he worked it up to 6 feet 6 inches. This year he has not been able to do much jumping of this kind on account of his leg injury.

In addition to his jumping he does from 2 to 4 100's on the grass at ¾ effort each day.

In mid and late season he usually jumps on Monday and Wednesday only.

Developing the Shot Putter

by **L. B. MORRIS**

McLean Junior High School

Fort Worth, Texas

We provide every boy on our squad with the opportunity to become a shot putter. Regardless of his size or age, there comes a time when he must, after having completed a prescribed number of days of conditioning, line up with his teammates to put the shot. This practice has paid off in that we discover each year several youngsters who are good prospects for putting the shot. It likewise has paid off in stimulating and maintaining interest in this event. By the time that each squad member finishes with his 3 trials, each member is pretty well versed in the fundamentals of the event. Not only is there an increase in interest on the part of each, but an increase in performance. We reward the boys by keeping a larger number for additional work than most coaches.

We rule no one out because of his size. In 1937, the state high school champion in Texas weighed 149 pounds, while in the late forties, Charles Fonville set the world's record with the 16 pound shot at better than 58 feet when he weighed 192 pounds, a lightweight in comparison with most present day shot putters. Darrow Hooper of Texas A & M, a boy whom we had the pleasure of coaching when he was in high school, set the national record with the 12 pound shot at 59 feet 10 inches while weighing 188 pounds, and the national record in the discus at 176 feet 7¾ inches while weighing 195 pounds. Darrow was rather small, especially when he was only 16 years of age, for such tremendous throws. Robert Crow, one of our McLean Junior High boys in Fort Worth, whose pictures appear in this article, did 55 feet 4½ inches with the 8 pound junior high shot while weighing 160 pounds. Robert's brother, Douglas, of the same school, has done 51 feet 10½ inches at the age of 14, while weighing less than 160 pounds. It is true that a good big boy is better than a good little boy, but often times the big boy is not good to the extent of having outstanding shot putting qualities. Nevertheless, should he possess those qualities such as desire, strength, coordination of mind and body, speed and willingness to work, we would also like for him to be tall and muscular, and possess large hands, wrists, and legs, and have long and strong fingers. This would be the perfect type shot

putter. But how many of us get shot putters who have all the above qualities? Not many, I am sure. Then, what are we to do? We must, through constant practice, find out the weaknesses of our boys and try to correct those weaknesses. The coach, by showing a personal interest in the boy and in his event, can often change him from mediocrity to greatness. The shot putter deserves this attention, whether he be the ideal type or one less suited for the event.

As stated previously, we carry large squads of weightmen. We do not favor this event over other events in track and field, but we do give it equal footing with the others. We have found most coaches to be less interested in the weights than in the other events. For this reason, we have always been able to score well in the shot and discus, many times the points gained here being the difference in the final standings of the teams. I recall an instance several years ago when we had five boys on our team who could break the district record in the shot. Of course, only three of them could enter that particular event, but it was gratifying to know that we had that assurance of points before the meet began.

We feel that the shot putter should wear shoes that have spikes on both the heel and toe. Many successful weightmen wear only the sprinters shoe, but we feel that he doesn't get the traction needed from this type shoe. (Note.—The accompanying pictures show Crow to be wearing tennis shoes. This conforms with rules in Fort Worth that junior high track and field men are not to wear shoes with metal spikes on them.)

We also feel that much care should be taken in choosing the shot to be used. Just as a baseball player chooses his bat, so must a weightman choose his equipment. Since the weight of the shot must be standard, the choice lies with the size of the object—governed by the type metal used in its construction. The size of the weightman's hand should determine the type shot to be used.

Then he must dearly love to put the shot. It is a great source of pleasure to watch Hooper, and James Brewer (North Texas State) and the Crow brothers operate. They mean business when they get into the shot put ring.

There are two methods in holding the shot. The most accepted method is the one where the fingers are held together, and in back of the shot, with the thumb serving as a balance on the side. The wrist is bent well to the rear. The other method is primarily for athletes with small hands. This method finds a spreading of the fingers, allowing the shot to drop a little farther down toward the palm.

The shot is put, not thrown, from a ring which is 7 feet in diameter. It is placed against the neck and immediately under the right ear and right tonsil for right-handed throwers. The right elbow is kept away from the body, while the left arm is lifted to a point where, when it is bent at the elbow, a string may be stretched from the point of both elbows across the shoulders and form a straight line. As the left elbow is bent, the forearm is brought in to a point where the left hand, palm down, dangles in a position about 6 inches in front of the point of the left shoulder. The arms are slightly "cupped" forward.

The right foot of the athlete is placed at the back of the ring, with the toe pointing slightly away from the direction in which the shot is to be put. The left foot is placed about the width of the shoulders from the right foot. The athlete is standing with his left side toward the direction in which the shot is to be put. He is facing at a 90° angle to this same direction. He then bends his right knee slightly and leans his body to such a degree as to be in position to drop the shot just to the right of the right foot. The eyes are cast in the direction of the ground, about 8 or 10 feet in front of the toe of the right foot. The weight is on the right foot. Crow brings this out well in picture No. 1.

The left leg becomes slightly bent at the knee with the toe easily touching the ground for balance. To lift the toe very lightly from the ground and place it back a time or two aids in relaxation and thought. (Picture No. 1) However, it is not wise to remain in this position very long because of its effect on the right leg. Also, because of the weight of the shot, which should not be held too long before being put.

After the weightman "feels" that he is ready to throw, the left hip and leg with knee slightly bent, is lifted enough that the left foot can clear the ground in the direction toward which the shot will be put. (Picture No. 2). Then it is brought back down to a point beyond and behind the heel of the right foot (Picture No. 3), where it is returned with a vigorous swing or kick toward the landing spot of the shot. (Picture No. 5). The left knee remains slightly bent. This swing must be made upward, outward, and be made vigorous. In the meantime, the upper body has remained in position.

The left leg swing causes a sudden pull of the body across the ring in the form of a hop. This must be accomplished with maximum speed. The landing of the right foot and lean of the upper body assume their same characteristics as before the hop, with the exception that the right knee is bent more in readiness for the explosion which is to follow. (Pictures No. 6 and 7). The spikes of the right shoe barely clear the ground, in fact, sometimes scratching the ground as the hop is made.

As the right foot completes the hop (Picture No. 8), the left foot approaches the ground, pointing in the general direction of the landing spot of the shot (Picture No. 9). Its placement is found to be several inches to the left of an imaginary line drawn through the center of the ring and pointing in the direction of the put. (Picture No. 10). This gives the athlete an "open" stance, freeing the hips for a shift of most of the weight from the right leg onto the left leg, with the right leg driving from behind. The left knee remains bent slightly in order that it will not be bracing against the shift, the weight needing to establish itself on top of the leg, the hips being open. (Picture No. 11 and 12). The putting of the shot is synchronized with the landing of the right foot in the center of the ring (the distance of the hop being governed by the viciousness of the left leg "swing"), the placement of the left foot, and the shifting of the weight. It is a "right, left, shift, and go" proposition (Picture No. 3), with absolutely no time lost in getting started. To delay the start of the shift is to rule the hop needless. (Note: The shot should be held on to until the weight has been shifted from the right leg to the left leg so that the body can play its part in pulling the shot forward as the right leg drives from behind. Most shot putters begin their release prematurely). Some shot putters "cock" or draw back at this point. This is in error, as it cuts down on the speed acquired in going across the ring. Simply "explode" with the shot, the "explosion" coming from the following points: (1) landing on bent right knee with upper body leaning toward and eyes still fixed on the point in front of the right toe which is slightly behind a line of a right angle to the possible landing spot of the shot. (Picture No. 6), (2) planting of left foot and severe shifting of the weight (Pictures No. 10 and 11), (3) very quick turning

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of the body with shitf and straightening of the right leg: (Pictures 10 and 11), (4) vicious whipping of the left arm outward, backward, and downward (Picture No. 11) and maximum use of both legs, (5) tremendous driving of the right elbow behind the shot (Pictures No. 11 and 12), (6) keeping the head up and eyes on the shot all the way (Pictures No. 8, 9, 10, 11, 12, and 13), (7) releasing shot immediately in front of right eye (Picture No. 11), (8) using a tremendous wrist snap as the shot leaves the hand. This follow through gesture adds much to the throw and should be practiced daily. (Picture No. 13).

Care should be taken that the shot not be pulled away from the neck before being put. (Picture No. 11). This pulls the shot from the center of power, and causes the putter to have a tendency to throw the shot, rather than to put it. Also, care should be taken that the shoulder is not rolled up or down, but shot straight forward.

The final step is the reversing of the feet, used for balance, but not as a part of the throw. Some weightmen can maintain their balance without shifting the feet. However, it is recommended that, following the release, the right foot be in a forward position, hitting the inside of the toe board as the athlete balances himself up and down, while the left foot is being held off of the ground and behind the athlete. (Picture No. 12). Failing to hit the toe board means the loss of valuable inches on the put. If all of the ring is not being used, the athlete might need to begin his hop with the right foot removed a few inches from the back of the ring. And if he finds that he is having trouble getting the shot high enough, a few minutes of practice each day in putting over the goal posts of the football field, or a comparable height, will correct this fault.

Emphasis should be put on "staying with the shot" all the way, keeping the head up and the eyes on the object from the time it leaves the hand until it hits the ground. Failure to do so causes the athlete to pull away, taking something away from the follow-through.

Every effort should be made by the shot putter to get everything he has behind the shot. The slightest error will sometimes make a difference of several feet in his throw. Much of the work must be done by the athlete himself. However, constant counseling with the coach, or a teammate, is very beneficial.

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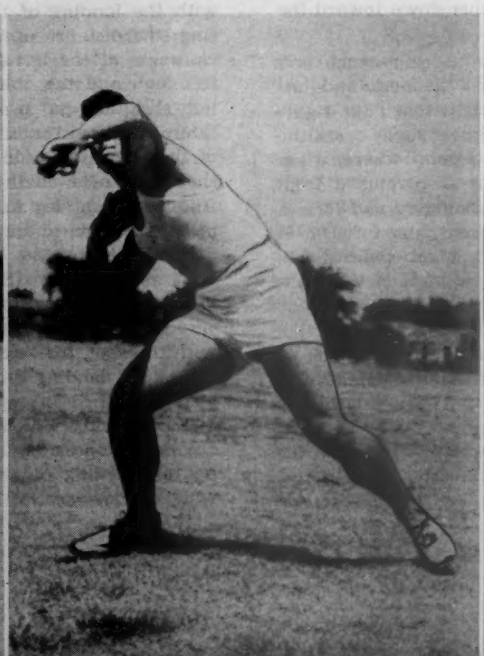

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The following practice schedule is suggested for the shot putter, provided he has been active in the fall in some sport, and has had at least three weeks of preliminary training. (If he also works with the discus, enough time and strength should be allowed for this event, even to the point of cutting down on the work with the shot. It is recommended however, that the work with the shot come first, as it is not as tiring as the discus, and will serve as a warm-up for same.)

Monday:

1. Jog not more than 1 lap, usually something less than a lap.

2. Do individual calisthenics, designed to loosen and strengthen the muscles. Push ups (some on finger tips), chin ups, windmill, one-quarter to one-half knee bends, lifting of the feet while on the back, etc., are some suggested activities. Skipping of the rope is always in order.

3. Complete warmup with a couple of 15 yard sprints from a standing start.

4. Get the shot, set up at the front of the ring in the same manner as if the hop had just been completed, and put about ten times without reversing the feet. Check each point of interest, such as

   a. The toe on the right foot should be pointed back a bit.
   b. The left foot should be to the left of the right foot and at the front of the ring, creating an "open hips" situation as it points toward the landing spot of the shot.
   c. The weight should be over the right foot, but ready to shift onto the left ahead of the throw.
   d. The elbow should be driven into the shot.
   e. The shot should be held correctly.
   f. The head should be over the right foot but ready to turn with the turn of the body for the throw.
   g. The left arm should be brought around and down.
   h. Emphasis should be put on a positive wrist snap as a follow through.
   i. The right knee should be straightened and the right hip thrust forward to aid in the "explosion." If the athlete is having trouble getting the shot high enough, the above may be practiced from in front of the goal posts of the football field, the shot being put over the cross bar of the goal posts.

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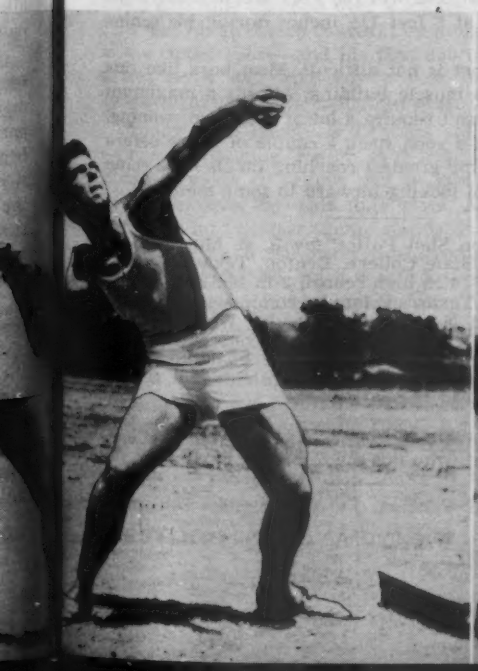

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5. The warmup should be continued in the front of the ring with another eight or ten throws, this time reversing the feet, and carefully watching the shot put all the way.

6. Set up at the back of the ring in proper form as explained previously, and work on the hop, emphasizing all of its phases. Pay particular attention to the kick, and to the weight at the end of the hop, making sure that it is over the right foot with the right knee bent slightly and the right toe turned back a bit. Also, that the left foot is in proper position as explained previously. Go through this precedure several times without putting, even while holding the shot.

7. Take three or four easy puts, getting in the hop and reverse, concentrating on all items pertaining to the "explosion."

8. Put the shot eight or ten times at full effort, having a teammate or coach observe the efforts for faults. If the arm begins to tire, do not work any longer. However, it is sometimes necessary to work longer than 8 or 10 times in order to correct faults which have developed.

9. Work 3 or 4 times over one low hurdle.

10. Take three starts under the gun with sprints of 25 yards on each.

11. Complete the workout by jogging a 220, sprinting the last 20 yards.

As the season progresses, it may become necessary to cut down or add to the total number of puts. The progress shown will determine the extent of the workouts.

Tuesday:

1. Warm up as on Monday, emphasizing wrist and finger exercises.
2. Report to the shot put ring and do about eight puts without the reverse.
3. Do about six, using the reverse.
4. Work three or four times on the hop without putting the shot.
5. Take seven or eight hard trials for distance, making sure that the shot feels right.
6. Work over 1 low hurdle a few times for
   a. Leg drive.
   b. Agility.
   c. Speed.
   d. Conditioning.
7. Take three or four starts under the gun. A weightman's sprint relay team, running against a second group of sprinters, adds much to the joy of the workout.

Wednesday:

1. Warm up as on Monday.
2. Put the shot 5 or 6 times without the reverse.
3. Do 5 or 6 puts while using the reverse.
4. Spend a few minutes on the hop.
5. Do 6 or 7 trials for form. Do not throw with full effort, even though the ring performance should not be slowed down.
6. Complete the workout with the shot by lifting it up in front of the face, palm forward, and flipping it to the ground several times. This will strengthen the wrist and teach the follow through. To take a lap while flipping the shot in this manner is very good training.
7. Work a few minutes on the high jump.
8. Jog 220 yards, bursting the last 15 yards.

Thursday:

1. Warm up as on Monday.
2. Put the shot 4 or 5 times without the reverse.
2. Do 3 or 4 puts, using the reverse.
4. Work on the hop until it feels right.
5. Take 4 or 5 moderate trials, emphasizing form.
6. Jog a 220.

Friday:

1. Take a light warm up.
2. Do three or four puts with the shot, using the reverse.
3. Do 3 or 4 puts, using the hop. These efforts should be very light. Some coaches prefer not to handle the shot at all on the day before the meet. However, there seems to be an advantage in a light workout.
4. Refrain from any jogging or running on this day.

Saturday — Competition:

1. Make sure of the time to report in order that the shot might be properly weighed.
2. Take normal warm up.
3. Get a rubdown by a team member.
4. Do four or five puts without the reverse.
5. Then do two or three, using the reverse.
6. Get to the back of the ring and do as many, with the hop, as is felt to be necessary to prepare for competition. Do them in a gradually increasing manner. Four or five efforts is usually enough, with the last two about 80% of the maximum. Care should be taken not to throw too hard before competition begins. Save the best efforts until they count.

Be business like! Before entering the ring, think of the things that must be done and try to do them.

Sit down between throws as much as possible. Always wear warm-ups except while actually putting. Do not hold the shot too long before putting as its weight will cause the arm to become tired. Be able to shut out all noises around the ring so that complete concentration may be given to the many things that must be done in order to make a successful put.

There is no substitute for speed and muscle development in working with the weights. Starts and short races early in the week are very desirable. Muscle building exercises should be practiced everyday, especially early in the week. Work over one low hurdle and at the high jump pit aid the shot putter in that these events help to condition him, and to give him leg drive that is so important in putting the shot. Also, this work causes him to gain a period of relaxation that very often is beneficial to the athlete. While we generally don't ask our weightmen to participate in other events, Hooper became so efficient at high jumping while working on the shot that he was able to enter and win the Fort Worth Championship in that event at 6 feet 1½ inches during his senior year.

Teaching the shot is not difficult. Most boys like this event because it is muscle building, affords a maximum of competition, doesn't require a lot of real hard running, and gains for them a good steak a couple of hours before the meet. Some of my greatest coaching thrills have come from this event. I'm looking forward to some more.

"Developing the Shot Putter" by L. B. Morris (B.S., M.S., North Texas State College, Denton, Texas). Sixteen years of coaching—14 in high school, 2 in McLean Junior High, Ft. Worth, Texas. Prior to coming to McLean, coached 6 years in North Side High, Ft. Worth, Texas, as line coach and track coach. Had 5 consecutive City championships, several individual state champions and one (Darrow Hooper of Texas A. & M.) National record holder.

Pictures are of Robert Crow, 15 year old McLean Junior High student, who put the 8 lb. shot 55' 4½".

Pictures by Al Panzera, Ft. Worth Star Telegram.

Oxy's John Barnes---The Boy Who Likes To Run

by PAYTON JORDAN

Track Coach, Occidental College

The achievements of John Barnes, Occidental's great halfmiler are known to all track fans. The story of how a young boy, with some ability and a world of perseverance, has developed into a full scale international star has yet to be fully told. It is a heart warming revelation and deserves to be highlighted in this article.

The story starts back in 1946. At the time Johnny, a high school sophomore, was a baseball enthusiast. He was not, however, good enough to make the Long Beach Wilson traveling team. One Friday when the varsity horsehiders took to the road, John, left behind as usual, wandered over to the track where Coach Vincent Reel, former NCAA hurdler from Occidental, was holding time trials. As impetuous sophomores are prone to do, Johnny boldly asked Reel if he might participate in the "goings on." Reel smiled, nodded, and shoved John into a "C" 660 race. At the crack of the gun Johnny took off like a scared rabbit and Coach Reel's smile and nod changed to a long, low whistle. John Barnes' track career was launched. It is interesting to note that the last time John ran a 660 in practice he toured the distance in a fast 1:17.0. Yes, I whistled too!

In his Junior year in high school John ran the 880 in 2:03.4. His 440 time was comparable and he seemed destined for a fine high school career. Young Barnes had great ambitions for his senior year, but a serious infection of the lungs sidelined him. There was real doubt if he would ever run top times again. At least there was no talk of his running the two laps fast enough to interest big name track schools. John was a broken hearted boy during his senior season.

In the fall of 1948, however, John, refusing to accept mediocrity in his running, went out for cross country at "Little Occidental College," the alma mater of his fine high school coach. By working tirelessly upon his wind and endurance John conquered his lung trouble and won the conference championship. He has now enjoyed a four year reign as top man in the sport of blisters and bunions.

In the spring of 1949, in a frosh dual meet with USC, Johnny scored a memorable victory by flashing to a 1:56.5 half mile triumph over a highly favored adversary. This was his first step toward becoming a national figure in the cinder sport—and his first 880 under 2:03.4. Quite a feat for a kid who only a year before was termed "washed up" as a top half mile prospect.

Today John Barnes is 22 years old, stands 6' 1", and weighs 162 pounds. He is lean, trim, and loves to run. There is reason to believe that he is now ready to move up on the two top half mile stars, Mal Whitfield and Arthur Wint. In fact, John stands at the threshold of the 880 yard and 800 meter world records. Time will tell how well he will do, but it is safe to say that he has come a long, long way in his short career.

As a sophomore in 1950 John won his first race against an outstanding 880 man. In the USC-Oxy meet he conquered Bob Chambers, 6th place winner in the 1948 Olympics. He again hit the headlines a few weeks later when he beat the Olympic Champion Mal Whitfield at the Compton Invitational in the time of 1:52.6. A week later in the Sectional A.A.U. meet he ran 1:51.1, the top time ever run around four turns on the Los Angeles Coliseum track. In the NCAA John placed third in the half mile after running all over the track.

In 1951, his junior year, Barnes climaxed another highly successful season by winning the NCAA 880 at Seattle, Washington in the excellent time of 1:50.7, fourth fastest time in the history of the NCAA meet. Earlier, at Compton, he stopped the watches at 1:50.1 in beating Mal Whitfield for the second time—only to be disqualified for cutting in. Of interest was the fact that John covered the last 220 of this race in 25.7 seconds, the fastest final furlong on record.

Now, in 1952, just graduated from college, Barnes has a best in the 880 of 1:50.1 for 12th all time top mark run outdoors. His best in the 800 meters was his '52 NCAA win at Berkeley in 1:49.6. This mark compares favorably with the 1:50.6 time set in the 1938 European Championships by the great Rudolph Harbig of Germany at the age of 24 years for his then all time best. The next year it was a 1:46.6 for Mr. Harbig—this mark being the future book effort for Barnes!

Harbig and Barnes 800 Meter Comparison

It might prove interesting to give a comparison of Rudolph Harbig's 1:46.6 world record in the 800 meters and John Barnes' 1:49.6 NCAA effort. Harbig had the good fortune of the best kind of competitive conditions with Italy's Mario Lanzi setting a perfect pace. On the other hand, Barnes was called upon to run his own race from start to finish followed by Henry Cryer of Illinois. Of special significance is the fact that in both races the first 660 was run in almost duplicate times.

Harbig's 800		Barnes' 800	
25.6	440 — 52.6	25.5	440 — 51.5
27.0	660 — 1:20.1	26.0	660 — 1:20.2
27.5	440 — 54.0	28.7	440 — 58.1
26.5	800 — 1:46.6	29.4	800 — 1:49.6

Harbig's race, it should be noted, was run on a three turn track while Barnes' was on a four turn basis as per Olympic Games regulations.

John Barnes and Bob McMillen

Before delving into the training procedures and work out programs that we have developed for half milers at Oxy I would like to point out what a fine gentleman John Barnes is. He is modest, almost to a fault, and the most willing worker I have ever seen in track and field. As a team man he is without peer and it was fitting that during our '52 season he was honored as a track co-captain. John was also honored this past year by being selected the outstanding senior man in college. For the past two years John has been fortunate in another respect. As a team mate, friend, and running partner he has had Bobby McMillen, 1952 NCAA 1500 meter champion and record holder with a time of 3:50.7. It is my opinion that their running together has contributed much to their ultimate performances. There is nothing like the close bond between two outstanding teammates to increase progress and desire to excel. John and Bob love running and enjoy their workouts together to the extent that the hard work of training has been fun for them.

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Barnes, no doubt, might be considered a rather unusual half miler in that he actually loves to run long distances. This strange desire seems to be in direct contrast to most of our present top notch 880 men. John, however, has had to overcome other distinctly unique problems that bear mentioning. Prior to this season a lack of upper body strength and an awkward arm action were weaknesses that interfered with his best performances. Therefore, a program to correct these problems was prescribed during the 1951 cross country season.

At the outset John found difficulty in doing five push-ups and three pull-ups. Now, after diligent practice, he is able to do 50 push ups and 20 pull ups. He can also climb the 25 foot rope now—a feat he couldn't do before. By strengthening and gaining full control of his arm movements John has cured the arm action that before upset his running and caused much wasted energy. Since the 880 is fundamentally a striding race it is easy to see the disastrous results of a fault that kept the arms working in unison with the legs.

The Work-Out Program

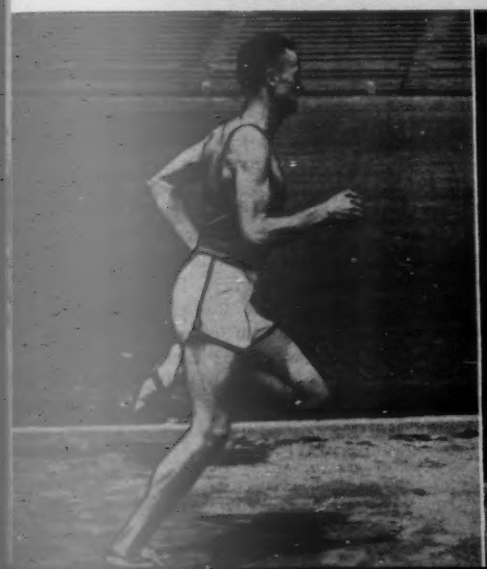
The work-out program for the half mile, as practiced at Occidental, will perhaps be familiar to all my coaching colleagues. For the sake of comparison, however, I will outline our preliminary, mid-season, and late season work with special emphasis on the schedule of Johnny during these periods of preparation.

Warm Up Is Physiological and Psychological

At Oxy, our idea of a warm-up is two fold—physiological and psychological. Both must be included in the proper training technique. The specific prescription or work plan to follow is partially an individual proposition and cannot be the same for all. It is evident, however, that by our warm-up we are attempting to get all systems of the body to the point of adjustments necessary for strenuous exercise and to give the boy the feeling of confidence that he needs for a top performance.

A typical warm-up for John would find him jogging easily for at least a half mile before turning to stretching exercises which emphasize the loosening of the hips. It is our opinion that relaxing the hips is very important for any runner, and especially the half miler, who must develop an easy striding ability.

Next, John resumes jogging with a gradual build up of running action until he is ready to run a series of "wind sprints," where hip action or swing is once again stressed. This is done by driving the knees through and letting the



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lower leg drop so the force of bringing the limb through is not dissipated by excessive lower leg extension.

Of considerable interest to some is our rather unorthodox practice of doing a great portion of the warm-up and actual running on a grass turf in bare feet or tennis shoes. It is our opinion that running on a cushioned surface, such as grass, substantially reduces the usual hard jarring of the leg musculature. This, in turn, facilitates better leg relaxation for later all out efforts on the track. Both Barnes and McMillen seldom don their spikes in practice except for time trials. The great bulk of their mid-week running is on the grass.

1. **Preliminary Season.** As would be expected, attention during this period is directed to developing a strong base with many 220's, 440's, and an occasional 660 or 1320.

Monday usually involves a 1320, with no pressure, and a good deal of 440 "in and out" running. John is a boy who has to be held back since he wants to run further and longer than prescribed. This particular problem is one that most coaches like to deal with.

At the end of every practice we like to have our men finish with a good sprint. And, regardless of the workout John is always reminded to liken his action and thinking to half mile needs.

Tuesday is our heaviest work day. Hard 440 "in and out" running usually are the fare for the day. On our heavy work days Barnes and McMillen usually team up for some real fun—if running from 10 to 12 hard quarter miles falls into such a category.

The boys usually break the Tuesday workout into two parts. The first five or six quarters are run as follows: an "in" at about 58 seconds, an easy "out" lap and so on. Between the two groups of "ins and outs" they take it easy by relaxed jogging.

At times we will run two "pace" 660's and three or four 220's in place of the 440 "in and out" running. Again, we like to finish off with a few good wind spirits.

Wednesday we work according to the needs of the boy. Sometimes it will be 330's or repeat 220's to build speed. Often it will be simple pace work on 440's or 660's.

Thursday is an optional work day depending on the condition of the boy. Generally, we lean toward short sprinting and smooth striding activity with the two fold objective of facilitating tone and yet developing explosive energy.

Friday is a rest day. We aim at just enough workout to relax nervous tension and make a shower worthwhile.

2. **Mid-Season:** At mid-season attention is pointed toward pace, speed, and strategy of the race. Our number of work days are less since, in our opinion, the mental factor now becomes the most important aspect of the training program. This does not mean we quit working, it merely implies a redirection of our emphasis.

Monday is usually an "in and out" day, but in mid-season we tend to use 220's rather than 440's. More wind sprints are used than earlier in the year. If the athlete appears short on stamina we prescribe a good tough 660, while if speed is the weakest individual factor we like a good fast 330 yard dash.

Tuesday is our pace and speed day and we seldom go beyond a 440 and never below a 220.

Wednesday is used as short sprint day. Starts, 50 yard dashes, and 220's are our mainstays.

Thursday continues to be an optional day and we let the runner decide for himself what he needs to bring himself to the proper tone and best mental attitude.

Friday is either rest or a light workout and a refreshing shower.

3. **Late Season.** Late season work involves the preparation for big meets. We work to keep the athlete's base while varying the workouts to his specific needs. Barnes trains religiously and when he reaches his peak condition it is not necessary to work him hard, but rather to give him proper pace work and necessary speed running to keep him sharp.

In most instances coaches find that the heats and all out runs in top flight competition keep the good boys in razor sharp condition. This naturally affords a drop off in the intensity of the daily work outs.

On Monday we usually run a couple of 220's, do some wind sprints, then wind up with light jogging.

Tuesday's workout might well include a pace 440, some starts, and 50 and 100 yard dashes. To wind up the day we have a good fast 220.

Wednesday is optional in our book with some wind sprints and easy striding being favored.

Thursday is rest day or possibly a light work session with a shower if it serves to relieve tension and give a sense of fitness.

Friday, we're ready to go in the heats of the big meets.

In conclusion, it should be evident that we attempt in all our conditioning work to present the same frame of reference that will be carried into competition. We even try to duplicate the physiological disturbances in practice that will be encountered on race day. The training routine should be varied just enough to avoid dissipating fatigue. And, throughout all our workouts we try to develop "hip action" running which is, in our minds, the key to high level pace and low level output.

Most important of all, the psychological aspects of the race should never be forgotten. As Johnny Barnes aptly remarked: "Your most dangerous competitor is yourself."

John Barnes Picture Sequence

1. Shows in particularly vivid fashion the foot landing position with very pronounced heel drop action.
2. Indicates excellent general relaxation while running.
3. Shows Barnes reaching out in full half mile stride with particular emphasis on knee drive and lower leg relaxation. The relaxed position of the hands and fingers is also worthy of note.
4. Shows the transitional phase of Barnes' striding action.
5. Affords an excellent example of the rear leg kick up that is conducive to relaxation and proper swing through of the back leg.
6. Indicates the outstanding hip action so characteristic of Barnes' running style. There is also a definite unison of the arms with this leg and hip action which we mention in the article as being so paramount in developing an easy striding action.

BARNES' BEST MARKS

220	21.6
440	47.1
880	1:50.1
800 Meters	1:49.6
Mile	4:13.7
400 Meter Hurdles	53.9

400 Meter Hurdles

by LOU C. MONTGOMERY

Cornell University

Training a man for this race is not nearly as difficult a chore as trying to write about the event. I hesitated at first to accept the assignment. However, in view of our success in training Charles Moore and Meredith Gourdine in this event, I decided to undertake the task.

There is very little material written about the 400 meter hurdles. It seems to be the "dark chapter" in track writings. Hence a coach must more or less assume that he knows as much about the event as anyone else. Dean Cromwell, veteran coach of U.S.C., calls the 400 meter hurdles a "Man-Killer" and gives an interesting history of the event. Bresnaham and Tuttle in their "Track and Field Athletics" treat the event with more material and knowledge than I have found elsewhere, and I recommend those interested in the detail of this event to read the article.

Charles Moore is an exceptional runner and hurdler who eats up the ground with a long stride which is easy for him, but which might ruin another man if he tried to copy his style. At first we worked on the assumption that Charley could take 13 steps between the hurdles because of his long stride average close to 8 feet in the open 440 yard run. Some of his steps are 8 feet 6 inches, some 8 feet 2 inches, and many 7 feet 10 inches. This at first seems over-striding, but the 440 yard run can almost be called a dash today. We believe that the shorter the distance (dash), the longer the stride. Therefore we feel safe in saying that Moore's stride is practical. It is this long stride of Moore's that hampers his efforts in the 440 yard run when he must fight for the first turn. He is at his best when running out of a chute or when running in individual lanes the entire distance. This was clearly demonstrated this past May in the IC4A when he had to run wide around both turns at Franklin Field from a "fight for the first turn" start.

However, in getting back to the 400 meter hurdles, we find that the average man will take off about 7 feet 6 inches to 7 feet 9 inches away from the hurdle and land around 4 feet 4 inches on the other side; he then has about 103 feet to cover in either 15 or 13 steps. If he can average 6 feet 10 inches per step, he can run the distance very comfortably in 15 steps. To make the same distance in 13 steps he must average 7 feet 10 inches per step. Moore has run the entire distance using 13 steps between each hurdle. At the Penn Relays in 1949, he used 13 steps over the first 6 hurdles, running it in 52.1 for a new meet record. The next year, both Moore and Gourdine took 13 steps over the first 5 hurdles, shifted to 15 steps on the turn and placed 1st and 2nd respectively, Moore breaking his own record in the fast time of 51.5; Gourdine in 2nd place was timed officially in 52.8 which was faster time than the 53.1 made by Jeffery Kirk of Pennsylvania in 1947 and which stood as the meet record until broken by Moore. This time of Gourdine's, therefore, was very fast time for his first attempt at the event. In 1951 the event was not run out of the shute and around 1 turn as of previous years, but was run around 2 turns. In this race both Moore and Gourdine took 13 steps around the first turn, and 13 steps the entire back stretch, with Gourdine slightly ahead of Moore as they cleared the 8th hurdle. It was here that experience gave Moore the race. He had planned ahead to shift to 15 steps after clearing the 8th hurdle and finished in great shape running the two turns in 51.8. Gourdine, on the other hand, had not planned his steps in advance which resulted in his approaching the 9th hurdle with the wrong leg for his take-off. It was too late then to do anything but jump or try hurdling with the opposite leg; his toe caught the top of the hurdle as he attempted to jump, and he fell. Moore's fastest time in this event was in 1949 when he won the National A.A.U., setting a new American record of 51.1 around one turn and using 13 steps over the first 5 hurdles.

Following is an interesting table showing the comparison of the distance and number of steps Moore uses when taking 13 steps and when he takes 15 steps. Your attention is called to the fact that the number of steps to the first hurdle differs, depending on whether Moore uses 13 steps or 15 steps.

USING 13 STEPS

21 steps are taken to the 1st hurdle, from a kneeling position on R. knee. The opposite leg he throws at the hurdle. This is the start he uses in the open 440 yard run.

Step	Length of Step
1st	2′ 5″
2nd	4′ 10″
3rd	4′ 10″
4th	5′ 2″
5th	5′ 7″
6th	6′ 3″
7th	6′ 8½″
8th	6′ 10″
9th	6′ 11″
10th	7′ 3″
11th	7′ 5″
12th	7′ 4″
13th	7′ 8″
14th	7′ 9″
15th	7′ 9¾″
16th	7′ 10″
17th	8′ 2″
18th	8′ 2″
19th	7′ 8″
20th	7′ 3″
21st	6′ 7″
Take off	8′ 5″
Landing	4′ 4″

Step	Length of Step
1st	5′ 6″
2nd	8′ 3″
3rd	8′ 0″
4th	8′ 1″
5th	7′ 11″
6th	8′ 1″
7th	8′ 2″
8th	8′ 3″
9th	8′ 9″
10th	8′ 9″

USING 15 STEPS

22 steps are taken to the 1st hurdle, from a kneeling position on his L. knee or the same leg he throws at the hurdle.

Step	Length of Step
1st	1′ 10″
2nd	3′ 8″
3rd	4′ 8″
4th	4′ 9″
5th	5′ 4″
6th	5′ 11″
7th	6′ 2″
8th	6′ 9″
9th	7′ 0″
10th	7′ 2″
11th	7′ 2″
12th	7′ 6″
13th	7′ 5″
14th	7′ 4″
15th	7′ 5″
16th	7′ 5″
17th	7′ 6″
18th	7′ 8″
19th	7′ 7″
20th	7′ 3″
21st	7′ 2″
22nd	6′ 7″
Take off	8′ 0″
Landing	5′ 1″

Step	Length of Step
1st	5′ 1″
2nd	6′ 7″
3rd	6′ 10″
4th	7′ 7″
5th	7′ 8″
6th	7′ 9″
7th	7′ 10″
8th	7′ 8″
9th	7′ 6″
10th	6′ 11″

11th	8′	4″	11th	6′	7″
12th	7′	9″	12th	6′	4″
13th	6′	11″	13th	6′	2″
Take off	8′	2″	14th	6′	2″
Landing	4′	6″	15th	5′	3″
1st	5′	5″	Take off	7′	5″
2nd	8′	0″	Landing	4′	4½″
3rd	8′	4″	1st	5′	2″
4th	8′	2″			

etc. etc.

REQUISITES FOR THE 400 METER HURDLES

1. Condition:

I believe that regardless of how many steps a man can handle, he must be in the best physical condition possible.

2. Ability:

To coach all men to take 13 steps would be wrong. But to keep a man from taking 13 steps when his physical ability leads you to believe he can do it, just because no other hurdler previously has used 13 steps, is comparable to making a low hurdler take 9 steps instead of 7 because he looks faster in the 9 step phase and it seems he is over-striding when he tries for 7 steps.

3. Judgment:

I believe that the 400 meter hurdler must practice the mental habit of planning for the next hurdle ahead as to how many steps he thinks he can take it in, and not wait until he is within 20 yards of the hurdle and then think about 13 or 15 steps. I believe this is the reason we see so many men approach a hurdle with 2 to 4 extra quick steps making their total 17 or 19 steps. This was Gourdine's mistake in the Penn Relays this past season, as mentioned earlier. I believe the excitement of being slightly ahead of Moore over 8 hurdles caused Gourdine to forget to concentrate, and as a result he found himself at the 9th hurdle with the wrong leg leading.

4. Coordination:

Hurdling style for the 400 meter hurdles differs from the low and high hurdles' accepted style. The main difference is in the use of the arms and the trunk. The trunk should not bend as low as the high hurdler nor should it be as erect as the low hurdler. The arms should not be thrust forward as does the high hurdler, nor should they be used for driving as employed by the low hurdler.

Also it appears to me to be very risky for the 400 meter hurdler to imitate the leg action of the high and low hurdler, as to skimming the highs and stepping over the lows. I do not believe in any specific style other than that which gives the hurdler a brief period of relaxation over the hurdle and a feeling of being balanced when he lands.

Moore uses his arms just for balance and makes no attempt to drive with them over the hurdles. The elbows are bent and slightly lifted forward; the shoulders slightly hunched forward and the arms slightly up at the sides and forward. Gourdine has not mastered this technique as yet and tries to employ a combination of high and low hurdling style which results in an off balance effect over the hurdles and upon landing. However, this year I feel sure he can eliminate this error.

5. Stamina:

Terrific arm and leg drive in between the hurdles is where Moore cuts down the seconds, and especially in going the last 40 meters to the tape. It is in this final drive to the tape that shows Moore at his best. It was in this drive that he passed Bob DeVinney (Kansas) in the Nationals this past summer (1951).

6. Endurance:

To be a good 400 meter hurdler, a man must be more than just a quarter miler. He should have hurdling ability over both high and low hurdles, and above all, stamina from work over the 440 yard distance. I believe Moore's success is due to his ability to run the 600 yards in record time. He holds the IC4A indoor record for 600 yards—1:11. I feel that it is this over distance at record speed that gives him the ability to run the 400 meter hurdles in fast time and still finish with a terrific sprint or kick.

7. Speed:

Starting speed and natural speed are other requisites that both Moore and Gourdine have, that give them an advantage in the 400 meter hurdles. Both are capable of running the 120 H.H. under 15 seconds. Both have run the 100 yards under 10 seconds, and the 220 yards in the low 21's. Moore has run the 220 low hurdles in 22.7 and Gourdine was timed in 22.9. Moore ran the 440 yards in 47 seconds, the 600 in 1:11, and could run the 880 yards in fast time if he ever had to. He ran 1:58 on a flat track indoors, winning easily after winning the quarter earlier in the meet. Gourdine, on the other hand, finds his stamina leaving after 440 yards. His best time in the 440 is 49 seconds. Of course we must overlook this weakness of Gourdine, who after running the 100, 220, low and high hurdles and broad jump, not to mention lead leg on the mile relay, is a fairly busy man and just simply does not have the time to work on distance.

8. Courage:

The 400 meter hurdler must be a fighter and a competitor and work himself up to a "nasty," "mean" mood just before the race. He has 10 obstacles to overcome and as he clears each hurdle he concentrates and focuses all of this "meanness" on each of the remaining hurdles. Concentration must be doubled as he approaches the 8th, 9th, and 10th hurdles because fatigue starts to take place and any carelessness or the least amount of let-up can be very costly.

Both Moore and Gourdine are great competitors and are at their best when the "chips are down" and the competition the toughest.

CONCLUSION AND SUMMARY

Perhaps time will prove that Moore can run faster taking 15 steps the entire distance than he does combining 13 and 15. Surely his efforts of 22.7 in the low hurdles would lead one to think he could run the 400 meter hurdles in 50 seconds or under. I believe that if the event was included in track meets regularly instead of once at the beginning and once at the end of the season, that new skills would be developed and we would see faster times made in this grueling contest. On the other hand, only one or two men have run the race faster than Moore, and it is fair to assume that with favorable weather conditions for training, and a relief from a 10 months' grind per year in the Engineering College, that both Moore and Gourdine would be able to improve their performances. I also believe that the fast times turned in by Moore and Gourdine in the 400 Meter Hurdles were directly due to their ability to use 13 steps between the hurdles.

I wish to thank both Charles Moore and Meredith Gourdine for their cooperation in helping me with this article and for the abundance of knowledge and pleasure I have gained from coaching them in this event. I look for both men to be serious contenders for berths on the American Olympic Track team as 400 meter hurdlers this coming summer.

TRAINING SCHEDULE FOR THE 400 METER HURDLES

FALL

Work out with the Cross Country team, but no competition or hill work. Easy running for endurance. Running or striding through 660 yards. Starting and driving over 3 intermediate hurdles.

WINTER

Training for Indoor 600's or half-miles and for a leg on either Mile or Two-mile Relays. Calisthenics and repetition of 220's or 300's.

Speed and form work over 4 to 5 high and low hurdles.

SPRING

Gym work every day to keep from reaching peak too soon. Stride over a flight of 8 to 10 intermediate hurdles each day as part of warm up, but ignoring speed or number of steps.

Monday—After Preliminary Work: Good gym workout and general warm up.

Starts of 2 hurdles on a turn, 2 starts out of chute. Run a 660 as follows: run over 5 hurdles wide open and then continue with straight running the balance of the distance. Time of the 1st 220 should be around :25.3 and the quarter should be under 60 seconds. This makes for a good over distance work on Monday alternated with 880's as original schedule mentions.

Finish with sprints on straightway and an easy half mile.

Tuesday. Gym work and warm up in general. Two or three gun starts. Run three 220's wide open interspersed with a 220 yard walk. No hard hurdling today. Easy running or jogging after the 220's.

Wednesday. Same warm up expected.

Join the high hurdlers and work hard on grass over 10 high hurdles. Moore and Gourdine would practice with the shuttle hurdle team repeating a flight of high's two and three times.

Rest 20 minutes and take a time trial in 440 yards on leg of mile relay or run two 330's wide open.

Thursday. Work in gym and light running such as starts and short sprints. Prepare for two separate quarters running each in 52 to 54 seconds.

Friday. Rest.

Saturday. Race or time trial in full distance.

Training Drills

1. Set up hurdles 7, 8, 9, 10 but not 1 through 6. Have hurdler run with his hurdle pace through the distance, and then hurdle the last four hurdles. This will develop pace and a judgment of adjusting his stride between hurdles.

2. Set up hurdles 1, 2, 3, omit 4, 5, 6, 7, and set up 8, 9, 10. Similar to above drill as to benefits.

3. Set up 10 to 15 intermediate hurdles from 9 to 10 yards apart and have hurdler run through taking 3 steps between hurdles. This is a good drill for hurdling form as the repetition is frequent and the distance shorter.

Note: The 400 meter hurdler is generally a regular track man in other events, and since this event is run about twice a year, the hurdler must weave his 400 meter hurdle training in with the quarter or half-mile workouts.

Horace Ashenfelter--- Olympic Steeplechase Champion

by **CHAS. D. WERNER**

Track Coach, Penn State College

When George Rider (President of the National Collegiate Track Coaches Association) asked me to get up an article about Ashenfelter's great victory in the 1952 Olympic Steeplechase, I began to wonder just what we coaches would want to know about it to be beneficial rather than just interesting. The sidelights of this fine athlete's progress from a non-athletic college freshman on through to his greatest triumph at Helsinki and the ensuing honors such as being chosen for the Helms Foundation and James E. Sullivan awards are a story of tremendous interest. In this article however, I shall try to hit those items which might concern us as coaches and be of value to future distance candidates.

"Ash" entered Penn State as a freshman in 1945 following his release from the Army Air Force, where he was a single engine pilot. One day in late September of that year, Curtis Stone (a junior) asked me to speak to a "smart alec" freshman who had just asked Stoney "How can a fellow get into this running racket, it looks easy." To my surprise, after the necessary medical examinations, etc., "Ash" actually did make it seem comparatively easy. He had a splendid background of country childhood, including considerable hiking and hunting, so that his inexperience as an athlete was hardly a handicap. The problem of teaching him efficient running form—pace, etc., was hindered by his fierce competitive spirit and reluctance to ignore the more experienced leaders. It was but a matter of days however, until he began to reason things out and from then on he was not only sponge-like in his eagerness to absorb knowledge, but exceedingly plastic and willing to try anything and everything which might aid in his progress. I have never worked with a more cooperative athlete. As I look back to those early days with "Ash" I would say that his greatest asset was DESIRE. He possessed extreme desire to get out of the novice class as quickly as possible. When he lost a race it was written all over him that it was simply the good fortune of those beating him to be catching him in the early stages—a picture of "you lucky stiffs—just wait." This inate **desire** has never lessened or diminished with improvement. In fact, I would say that as "Ash" became better and better—so did his **desire** increase to become better and better. I cannot emphasize this item too much. It is the prime requisite in athletic progress—as well as in progress in all other phases of achievement. Many athletic candidates have **desire**, but it is shallow and temporary and as such it stamps its possessor as a molly-coddle; a giver-upper; not even a good scrub. I am sure that track coaches have long recognized this quality and have often spent much time stimulating a shallow interest into a great burning desire. Many believe this quality so essential as to allot coaching time along the lines of 70% to creating desire and 30% to teaching technique and strategy. "Ash" had this.

Ashenfelter goes into lead on 2nd lap, closely followed by Kasantsev and Saltykov of Russia and Rinteenpaa of Finland.

Ashenfelter and Kasantsev show perfect form over water jump on 5th lap—two laps to go in Steeplechase finals—Helsinki, 1952.

About 75 yards to go on final lap of 3000 meter Steeplechase. Kasantsev with both feet in water faltered. Ashenfelter took this jump perfectly and won race by 25 or 30 yards.

Ashenfelter wins 3000 meter Steeplechase Finals at Helsinki, 1952, in new world's record time of 8:45.5.

Perhaps a summary of the progress in track during Ashenfelter's undergraduate days at Penn State is in order.

	1 Mile	2 Mile
Freshman	4:29	9:54
Sophomore	4:22	9:18 (2nd to Stone in IC4A)
Junior	4:17	9:13.2 (1st in IC4A)
Senior	4:14	9:09.2 (1st in IC4A)
		9:03.9 (1st in N.C.A.A.)

It is quite obvious that "Ash" made continuous progress especially in the two mile run which was his main event. Of course, working with such teammates as Jerry Karver and Curtis Stone helped a great deal. During these four years, he always ran cross country in the fall, and perhaps we are not placing proper emphasis on this phase. Personally, I feel certain that "Ash" could never have even approached his fine track performances without the aid of the strong leg muscles, lungs, and heart derived from cross country running. It gives strength of a deep sturdy nature—often called "**base.**" In the opinion of most leading distance coaches—cross country is very desirable and even a necessary prerequisite for top calibre distance performance in track.

It has been common knowledge that one of the main reasons for foreign dominance and American laggardness in distance running was that of maturity. Foreign distance stars continue to run far into the late 20's and 30's as far as age is concerned. We Americans are prone to stop running upon graduating from college, mainly to concentrate on the earning of a livelihood. This year of 1952 may have proved an important one to us along these lines, for at least it found our leading runners looking better as a result of having continued for several years following college graduation.

Ashenfelter's most notable progress came after college, where he continued to run in as many meets as possible. He was blessed by having as constant companions and rival competitors, Fred Wilt and Curtis Stone.

These three outstanding runners pooled their knowledge and helped each other by taking turns pacing races, yet leaving the final outcome to be decided by whichever one could out-finish the others. All three had the advantages of barnstorming Europe and learned much from the top-notchers over there. These three lads have brought back many items of running strategy which I will try to pass on to you.

The orthodox method of pacing a distance race in this country has always been with the first half of the race slightly faster than the second half. Further, when the two halves were broken down, it seemed proper to have the first quarter faster than the second and the fourth quarter faster than the second, with the third quarter being slightly the slowest. The formula amounted to this: the first half faster than the second, and the quarters arranged in this order: one, three, four, two. This basic formula has been passed down over the years from our greatest developers of distance runners, such as Harry Gill of Illinois, Jack Moakley of Cornell, Tom Jones of Wisconsin, and Billy Hayes of Indiana. Of course. many others could be added. The thought back of this formula was twofold: first, the economy of effort which could be called efficient running, and secondly, for minimizing fatigue. In other words, adherence to this formula meant the achievement of the best results with the least expenditure of effort and minimized result in fatigue. The formula is the result of countless experiences in trials and errors. It seems to be the most acceptable formula, especially for beginning runners.

The main change in this formula which Wilt, Stone, and Ashenfelter picked up from the foreigners was that in races which approached or surpassed world's record times found the pacings to be somewhat like this: The two halves of the race were almost identical in time, and the quarters were arranged like this: four, three, two, one. This may seem surprising, but it is not too far off of our orthodox formula; since the time is so close to being even all the way. Here is an example: Last year in a session with the above-mentioned boys about the world's record of 8:42 for the two-mile run, we learned that Gunder Haag ran the first mile in 4:21 and the second mile in 4:21. More recently, Gaston Reiff, the Belgian, ran two miles in 8:40.4. The first mile was in 4:19.7 and the second mile in 4:20.7. It was noted that the old "bugaboo" of the slow third quarter is the one thing which these foreigners go all out to overcome. (Please keep in mind that we are talking about a formula which is workable in the big time and that it is not quite as good for beginners as the one mentioned earlier.) The type of runner who can use this formula to best advantage is one who is so strong and has such resistance to fatigue that he is willing to gamble and shoot the works. Let me relate a very interesting happening concerning last year's indoor running.

After running a good number of races at two miles and one mile on the Indoor Board Track at Madison Square Garden, Boston, Washington, Philadelphia, and elsewhere, Wilt, Stone, and Ashenfelter approached me as to what they should do to take a crack at the world's Indoor Board Track Two Mile Record. They had been running in the nine minute area, sometimes slightly over and sometimes slightly under, week after week. Our first question was this: "How fast have you ever run a mile-and-a-half?" The answer was "Somewhere slightly under 6:35." We then decided that in the next race, which was to be an exhibition two-mile run at the Indoor IC4A Championships at Madison Square Garden, they were all to agree to stay in a little cluster close to one another and try to run the mile-and-a-half in 6:35. (Remember now, this was almost as fast as they could run without adding another half-a-mile to it.) They were willing to take a gamble which could well have resulted in not one of them finishing the race. The strategy finally came down to this: Bill Ashenfelter was to set the pace for the first mile-and-a-half and then continue or drop out, according to how he felt. The other three, Wilt, Stone, and Horace Ashenfelter were to stay right with this pace and then take over whenever the pace slackened. Now here is the way the race actually turned out. Bill Ashenfelter took the lead and was perfect in pace the first mile, at 4:25. He unconsciously slowed up after that and all three of his followers were heard to inform him verbally of this. Apparently Bill did not hear them, so that Horace Ashenfelter took the lead from there on. His time for the mile-and-a-half was 6:38, with Stone and Wilt right on his heels. The next quarter was run in around 69 or 70 seconds, and from here on it was a race between all three of these lads to see who could win. The last quarter which was run in 63 or 64 seconds found Wilt the winner by a step over Horace Ashenfelter and Stone a most respectable third. Their times were 8:50.7 for Wilt; 8:51.4 for for Ashenfelter; and 8:54.4 for Stone, with the winner breaking the accepted Indoor Board Track world's record. Within a couple of minutes after finishing this race, all four of the contestants came to me individually and remarked that this was the least fatiguing race they had run all year.

I have related the above incident to bring to the fore,

two very important phases of distance running. The first —that world's records are the result of planned pacing of such a nature that the final outcome is always questionable. In other words, the individuals shoot the works for the first three quarters of the race and simply hope that something will carry them through to the finish. Experience has shown that when this method is attempted, the final result is either spectacular or disastrous. There is nothing conservative about it. Furthermore, in each incident, the resultant fatigue is no greater than that of a normally paced race, and in most cases, considerably less. The second phase which we should profit by, is arriving at the mental attitude whereby one is willing to try this gamble even in front of a huge crowd where the outcome could very well result in complete inability to finish. In arriving at this mental state prior to the contest, the athlete is exhibiting courage far beyond anything we could call normal.

Ashenfelter's great victory at Helsinki wherein he not only broke the world's record for the Steeplechase and defeated the Russian great runner, Kasantsev, was the result of the following combination of incidents.

1. My fellow Olympic coaches, Brutus Hamilton, Clyde Littlefield, and Larry Snyder all agreed that it would be wiser to have Ashenfelter concentrate on the Steeplechase rather than run both the Steeplechase and the 10,000 meters. Consequently, at Princeton University, just prior to our flight abroad, we talked this over with "Ash" and he readily agreed to comply.

2. During the pre-Olympic workouts on the practice track in Helsinki, we noticed a Czechoslovakian runner who took the Water Jump with perfect form. He was a very likeable fellow and most cooperative. He was the European champion, and had no hesitancy in agreeing to show our Steeplechase runners how to acquire this perfect technique over the Water Jump. In a few days the result of this incident showed itself thusly: Browning Ross sprained an ankle and was through. Bill Ashenfelter became so befuddled in attempting this new technique that he was not only worse than when he started, but he couldn't even return to his former style. Horace Ashenfelter picked this up the new technique very rapidly and in a short while looked better than the Czech who was teaching him.

Actually, the form in clearing the Water Jump should be something like this: The runner should approach the Jump with no altering of motion, step on top of the barrier with either foot, ride over this foot and then extend the leg at the same time as he steps out to land in the water very close to the far edge. This should be followed by another step in more or less normal running style on the firm ground or track beyond the water. The difficult feature of this is to do it without loss of momentum or balance. I believe that the main stress should be to ride over the leg which has contact with the barrier before pushing on. In the past, I believe our American Steeplechase runners have extended this leg having contact with the barrier too soon, causing an upward lift instead of a forward propulsion. The result of this type of action was either a stumble in the water off balance affair, or else landing in the water with both feet and almost complete loss of forward motion, and then starting all over.

3. In the preliminary heats, the planned strategy was to stay away from the crowd for the first lap or two of this seven-plus lap race, so there would be little chance of being spilled by jostling or elbowing in clearing the hurdles or the Water Jump. After the first 600 or 800 yards, our boys were to feel free to go out and do the very best they could. It was amazing how Horace ran in his qualifying heat. He laid back for the first two laps, then went into the lead and drew away from the field to win in 8:51, creating a new Olympic record. It was obvious to almost everyone that this improved technique over the Water Jump simplified the event for him.

4. In the finals of the Steeplechase, "Ash" applied the same strategy of staying back for safety's sake for the first two laps, and then going into the lead. He ran out in front for the entire race from 60 yards on, with the Russian right on his shoulder. I must mention that it was not to Ashenfelter's advantage having the world's greatest Steeplechaser right on his shoulder, and he continued to pour on the pace in an effort to shake him; but to no avail. It should be pointed out that in running on Ashenfelter's shoulder for the last five laps, the Russian was running wider and therefore running further, so that perhaps "Ash's" disadvantage was counteracted by the Russian's disadvantage. With less than a half-a-lap to go, "Ash" intentionally permitted the Russian to take the lead. It is my opinion that in doing so, the Russian gathered so much false courage that he went a bit too fast, at least he faltered in taking the last Water Jump, which was about 75 yards from the finish. When he faltered, "Ash" took over and went away to win by 35 or 40 yards in the new world's record time of 8:45.5.

If "Ash" were to try and put his finger on the one thing which contributed most in bringing about this achievement, he would have to give up. There are too many items. Knowing the situation as I do, I would lay great stress upon the fact that he continued to run for several years after graduating from college. Wilt and Stone's contribution cannot be overlooked. Nor can I forget the way my colleagues, Hamilton, Littlefield, and Snyder, cooperated in arranging for "Ash" to concentrate on the one race, the Steeplechase. I have just thought of an added item of importance. It is illegal and not permissible to give times during races in Olympic games. I recall commenting on this with Ashenfelter after the race, and he agreed that he just kept pouring it on, with no knowledge of how fast he was going. Had he been given times at the various stages of the race, it might well have resulted in his creating a mental hazard, which would have caused him to be conservative to insure finishing the race. Actually, he entered the finals of the Steeplechase willing to gamble regardless of whether or not he finished.

I am sure that Ashenfelter would want me to mention the fine work done by the American trainers, Eddie Wojecki, Ike Hill, Kenny Howard, and Billy Fallon. Also our fine managerial staff of Bob Kane, Pinky Sober, Harold Berliner, and Larry Huston. Everyone of this group ran every race with "Ash" as well as every other American boy; and I don't see how an Olympic team could have had more intimate support than this group gave.

It will interest you all to know that "Ash" is still the same old regular fellow, despite the many honors which have been heaped upon him. I am sure that you will find him putting forth his best efforts in the distance runs for the next year or so. I know that he will be very glad to help others in the same way that he has received help.